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January 9, 2014

By Electronic Mail and Hand Delivery

Arthur A. Elkins, Jr. (2410T)
Inspector General
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Re: Request For Investigation Concerning EPA Bristol Bay Watershed Assessment

Dear Mr. Elkins:

I am writing on behalf of Northern Dynasty Minerals Ltd., owner of the Pebble Limited Partnership, to request that the Office of the Inspector General launch an investigation into an EPA environmental risk assessment report, the veiled activities that led to it, and EPA's management of the peer review processes employed during its development. The report is scientifically indefensible and biased, and we are asking you to investigate whether it violates the Information Quality Act ("IQA") EPA's own IQA policies, and EPA's risk assessment and peer review policies.

Introduction

The report is entitled "An Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay, Alaska" (Second External Review Draft, April 2013) ("the Assessment"). It has become obvious that the report was written to justify a preemptive veto of a permit for a particular mining project ("the Pebble Project") in Southwest Alaska, although that project has not yet been defined nor entered the permitting process.

The activities in question include three elements:

1. Since about 2008 EPA employees have been working quietly within the Agency for an unprecedented EPA preemptive veto of the Pebble Project. They worked internally, they worked closely with outside groups that oppose the project, and they enlisted other federal agencies.

2. EPA has tried to advance this effort by preparing the report that is the focus of this request. That report was structured to support a veto of the Pebble Project.

EPA relied on studies selected for that same purpose, while ignoring more reliable information that was publicly available or was submitted to the Agency but ignored. With uncommon haste EPA completed a deeply flawed assessment report that adopted anti-project views wholesale.

3. In an attempt to validate this biased report EPA manipulated its peer review process in ways that violate its own peer review principles.

Much is at stake. The lost economic benefits from wrongfully blocking this project can be estimated.[1] Over a 25-year project life, they include: annually, some 15,000 jobs; an annual contribution to U.S. gross domestic product of some $2.54 billion; and combined federal, state, and local tax revenues averaging about $350 million annually. In southwest Alaska, where jobs are extremely scarce and the cost of living is prohibitive, Pebble will provide more than 1,000 full-time jobs with an average annual income in excess of $100,000, and will expand the tax base for the Lake & Peninsula Borough by some 700%. We believe these contributions will be life-changing for a region currently beset by high levels of unemployment, poverty, out-migration, the loss of funding for schools and other community services.

Below I will describe in detail the three elements summarized above. These are the EPA activities that we are requesting you to investigate.

I. EPA Employees Have Been Working With Outside Groups to Convince EPA to Preemptively Veto the Pebble Project.

Although EPA has consistently stated that it prepared the Assessment in response to petitions from Alaska Native groups for EPA to veto the Pebble Project, that explanation conceals the prior two years of effort by Agency employees to persuade EPA to issue a preemptive veto. Those efforts, including collaboration with outside interest groups and outreach to other agencies, are described below.

A. Beginning As Early as 2008, an EPA Employee Has Advocated a Veto

EPA announced on February 7, 2011 that it would conduct a scientific assessment of the Bristol Bay watershed "in response to concerns from federally-recognized tribes and others who petitioned the agency in 2010 to assess any potential risks to the watershed."[2] On its Web site, under the heading, "Why We're Studying the Bristol Bay Watershed," EPA states: "We launched the study in response to petitions from federally-recognized tribes and others who

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[1] "The Economic and Employment Contributions of a Conceptual Pebble Mine to the Alaska and United States Economies," (IHS Inc.; May 2013).

[2] Available online at: http://yosemite.epa.gov/opa/admpress.nsf/d0cf6618525a9efb85257359003fb69d/8c1e5dd5d170ad99852578300067d3b3!OpenDocument

wrote to EPA with concerns about how large-scale mining could impact Bristol Bay fisheries."[3] In its many statements to Congress, the State of Alaska, the project proponent (Pebble Limited Partnership ("PLP")), the media and the public, the EPA has always asserted that the process began as a result of a formal written request by six tribes to initiate the 404(c) process under the Clean Water Act.

There is compelling evidence, however, that these EPA assertions about the origin of the 404(c) process are misleading. This evidence indicates that the 404(c) inquiry originated within EPA itself several years before the tribes made their formal written request. During the critical period prior to EPA's decision to undertake the Assessment, there were frequent contacts between key EPA officials and a small cadre of anti-Pebble activists working to secure EPA intervention using EPA's 404(c) veto power. Many of the EPA communications, activities and private meetings raise doubts about EPA's fairness, impartiality and objectivity in the Assessment process.

Although EPA has claimed that the Assessment was triggered by tribal petitions in May 2010, EPA employee Phillip North, who was based in Alaska, advocated for an EPA veto of the Pebble Project two years earlier, beginning at least as early as 2008. Mr. North then authored a critical portion of the Assessment.

On August 26, 2008, Mr. North emailed Patricia McGrath, EPA Region 10 mining coordinator, and said he would like to discuss the 404 issue at an August mining team meeting: "The 404 program has a major role. I would like the benefit of hearing what other EPA folks are thinking." [Ex. 1]

A year later, as plans were being laid for the annual EPA mining retreat where the Chuitna and Pebble projects would be discussed, North raised the issue again. In an August 17, 2009 email to EPA officials Michael Szerlog and Marcia Combes, North outlined the agenda which included "404 Issues – Phil" and said the meeting should include discussions about the EPA position and "appropriate action in response to our position." North wrote: "*As you know, I feel that both of these projects [Chuitna and Pebble] merit consideration of a 404C veto.* We will discuss this from a technical perspective and staff perspective at these meetings." [Ex. 2 (emphasis added)] A week later, on August 24, 2009, an EPA email confirmed that the agenda for the September 16, 2009 retreat would include North presenting 404 issues with discussions of the EPA position, action in response to the position and timelines, schedules and next steps. There was also to be discussion "about the appropriate communication to the developer and affected State/Federal Agencies." [Ex. 3]

These emails, obtained via a FOIA request, strongly suggest there is more to this story. But EPA documents produced under FOIA reveal no further references to this retreat, the 404(c) discussion, or whether EPA formulated a position and course of action as North requested. And

[3] Available online at: http://www2.epa.gov/bristolbay/why-were-studying-bristol-bay-watershed

the FOIA documents do not reflect any communications to state agencies, the developers or other Pebble stakeholders at that time.

Whatever happened behind the scenes and internally at EPA in 2009, by the beginning of 2010, *before* any petitions had been filed, the 404(c) issue had become significant enough inside the agency to warrant briefing the Administrator. Region 10 put together a 39-page PowerPoint briefing for EPA Administrator Lisa Jackson on January 13, 2010. Twice, the EPA briefing refers to the 404(c) veto power (on p. 35 and on the final page under "Future Options") although no permit application was pending and this would be first-ever pre-emptive 404(c) veto of a major development project in the 43-year history of the Clean Water Act.[4] [Ex. 4]

The formal tribal petition for 404(c) review would not be submitted for another four months, on May 21, 2010. Thus, the issue should have been no surprise to EPA even at the highest levels. In fact, the notion appears to have likely originated within EPA, with EPA's Phil North in Alaska, who may well have communicated the idea to those who would eventually file the petition.

B. EPA Has Encouraged Mine Opposition

One indication of Mr. North's eagerness to encourage outside opposition to the Pebble project appears in an email Mr. North sent shortly after the initial petition was filed. In a June 25, 2010 email to Richard King, whose Ekwok Village Council was one of the six tribes to file the initial 404(c) petition a month earlier, North told King: "Tribes have a very special role in Pebble issues because of government-to-government relations. EPA takes that very seriously. *I encourage you to develop that relationship as much as you can.* I look forward to talking with you more in the future." [Ex. 5] (emphasis added)

North communicated with other petitioners as well. Geoffrey Parker was the lawyer for anti-Pebble financial backer Robert Gillam and the six tribes filing the initial petition. In late 2009, Parker asked EPA who his point of contact at EPA should be. He was directed to John Pavitt, the project manager. [Ex. 6] [5] But it didn't take long for Parker find his way to North as a point of contact and source of information. [Ex. 7]

Two weeks after Parker filed the petition for the tribes, he sent North some related news stories. North's reply: "Thanks, Jeff. This is a strong argument for a broad approach to 404(c) . . . ." [Ex. 8]

Far from the dispassionate public servant seeking objective scientific information, Mr. North was also actively engaged with a number of those outside of EPA advocating an EPA veto. North collaborated with (among others) Peter Van Tuyn, a lawyer representing the Bristol

[4] EPA's only preemptive veto involved three virtually identical projects in Florida, located on three contiguous parcels. One of the three had not yet filed a formal Section 404 permit application.

[5] Parker signed the 404(c) request on behalf of the tribes Geoffrey Parker, but in his emails, he consistently uses Jeff Parker.

Bay Native Corp. ("BBNC") and Shoren Brown, Trout Unlimited's primary anti-Pebble activist. BBNC filed its own veto request on August 12, 2010 and sent a copy directly to North in a message that made it appear to be much more than a courtesy copy. Correspondence strongly suggests on-going communication and shared opposition to the Pebble Project. North replied to BBNC attorney Van Tuyn, "Hi Peter, We have been discussing 404(c) quite a bit internally at all levels of EPA. This letter will certainly stoke the fire. I look forward to talking with you in the near future." [Ex. 9] Absent an investigation, the degree to which these petitions were a product of collusion between EPA personnel and external environmental advocacy organizations remains unknown.

C. EPA Sought Veto Support From the U.S. Fish & Wildlife Service

North's role as a 404(c) advocate within EPA also spilled over into anti-Pebble advocacy with other federal agencies, including the U.S. Fish and Wildlife Service.

"I spoke with Phil North," U.S. Fish and Wildlife Service (FWS) biologist Phil Brna said in a September 23, 2010 FWS email on "Pebble and 404c." "He has now briefed people in EPA all the way up to the assistant administrator. *He believes EPA leaders have decided to proceed and they are just deciding when.*" [Ex. 10] (emphasis added)

North also seems to have dispatched the 404(c) advocates to carry the fight into other agencies. "He [North] is sending me contact info for the TU [Trout Unlimited] person so we can talk with them," wrote Brna.

"Phil says DC is opposed to his plan to do a year of outreach before they make a decision. He thinks they are just going to do this in accordance with the regs and as quickly as they can." Brna suggested to his colleagues that they ask Anchorage EPA chief Marcia Combes to have North brief FWS staff.

"When do you think we can schedule the first meeting? I will provide the Pebble layout showing road, port and mine as we know it. I also have a map showing 792.6 square miles of mining claims around Pebble," Brna said. "This is going to happen and it's going to get bloody. I am looking forward to it!"

Trout Unlimited's chief spokesman Shoren Brown joined the discussion in October 2010, saying that BBNC representatives and their lawyer Van Tuyn would participate in EPA briefings for FWS and their role would be to "stand up and support EPA." The target to be convinced was Geoff Haskett, the FWS Alaska Regional Director. [Ex. 11] (The record is devoid of any attempt to obtain participation of pro-Pebble stakeholders or state agency personnel.)

If FWS correspondence accurately reflects EPA's decision-making, EPA had unofficially decided on a 404(c) veto *even before* it began its watershed assessment. Ann Rappoport, Field Supervisor for the Anchorage Fish and Wildlife Field Office ("AFWFO") offered up a briefing

paper. [Ex. 12] The paper, dated October 1, 2010, was entitled, "EPA to Seek Service Support *When* They Use Section 404(c) of the Clean Water Act." [Ex. 13] (emphasis added)

In a "Summary of Likely Action," the paper states: "*The U.S. Environmental Protection Agency (EPA) is seeking Service support as they initiate a formal process to issue a determination that the waters of the U.S., including wetlands, within the potential pebble Mine action are unsuitable for the placement of fill material. This action would be conducted under the authority of Section 404(c) of the Clean Water Act (CWA)*, and would effectively prevent the project from receiving the necessary federal permits to develop a mine in the Nushagak and Kvichak watersheds." [Ex. 13] (emphasis added).

Although this FWS briefing paper was attached to an email written two weeks after the EPA announcement that it would undertake the watershed assessment, the FWS paper itself was dated more than four months *before* EPA's public announcement. The paper said, "As of last week [which would be in late September 2010], it is our understanding that EPA has tentatively decided to initiate the 404(c) process but they have not yet determined when this will occur."

AFWFO recommended that Phil North brief FWS Regional Director Geoff Haskett and National Park Service Regional Director Sue Masica. AFWFO further recommended that the Service support EPA and "provide biological information, technical assistance and recommendations when appropriate."

A series of emails in March 2011 shows some FWS managers trying to generate greater EPA-Department of Interior involvement up to the secretary level. Both FWS and the National Park Service are part of the Department of Interior. But FWS Chief of Conservation Planning Assistance Larry Bright, based in Arlington, Virginia, cautioned: "I wouldn't mention the Secretary's office at this point to anyone. If that particular move worked, it would need to be something that originated with EPA... Now if [Alaska Regional Director] Geoff [Haskett] gets religion and wants to brief all the way up the chain of command, that would be different." [Ex. 14]

D. EPA Has Held Ongoing Private Meetings with Mine Project Opponents

Among the most aggressive advocates for an EPA veto was Wayne Nastri, a former EPA Region 9 administrator, who shortly after leaving his post became a lobbyist for those "seeking a pre-emptive CWA 404(c) action with regard to the proposed Pebble Mine" as he wrote in one of his many messages to EPA officials. [Ex. 15]

Nastri's collegial messages opened EPA doors for people such as Shoren Brown, Bob Waldrop, executive director of the Bristol Bay Regional Seafood Development Association; and Rick Halford, a former state legislator.

EPA personnel did not seek balance. Rather, one-sided meetings seemed routine, based on the numerous EPA emails in which 404(c) advocates requested private meetings and calls and got what they wanted. The meetings almost always featured the same people: Shoren Brown of

Trout Unlimited; Bob Waldrop; Rick Halford; and the lawyers and lobbyists for the tribes, BBNC, Trout Unlimited, and others. There are elusive groups with no apparent legal existence, such as the so-called Bristol Bay Working Group. EPA seemed willing to accommodate these meeting requests without exception. [Ex. 16]

E. EPA Maintained a Period of Secrecy For a Trout Unlimited Advocacy Report

EPA has collaborated with activists seeking a veto from the agency. For example, on November 23, 2011, Trout Unlimited ("TU") provided EPA with an advance "embargoed" copy of its Bristol Bay report opposing the Pebble Project. TU informed EPA that the report was to be released "in the coming weeks." [Ex. 17] EPA distributed the report to its own staff, cautioning them about the embargo. In January, TU hosted a Q&A session with EPA about the report. Then, on February 8, 2012, TU released the report, 2 ½ months after giving EPA exclusive access. This process allowed TU to advocate its position within EPA without an opportunity for any response. This agreement between TU and EPA has come to light only because of the documents released as a result of PLP's FOIA request. [Ex. 18]

F. EPA Headquarters Has Also Exhibited Anti-Pebble Bias

Although anti-Pebble sentiment at EPA may have originated at EPA Region 10, it was also prevalent at headquarters in Washington. After EPA received the veto petitions in May 2010, Administrator Jackson neglected to inform PLP, the project proponent. At a meeting set up with representatives of PLP in July 2010 at the administrator's request, no mention was made of the petitions to veto the Project even though those petitions had been received by EPA months previously. Instead, PLP learned about the Petitions afterwards from the press.

In April 2011, EPA Administrator Lisa Jackson attended a fundraiser opposing the Pebble Project at the Supreme Court.[6] Lisa Jackson met with Alaska Native representatives opposed to the Pebble Project on multiple occasions, but over the course of this controversy she steadfastly refused to meet with Alaska Native representatives supportive of due process and a thorough analysis of the Pebble Project. Those Natives who opposed the preemptive 404(c) veto made numerous requests to meet with Administrator Jackson and every one of them was denied, despite those Native representatives being willing to adjust their schedules to conform with the Administrator's.

Headquarters' close relationship with project opponents continued even after Administrator Jackson was replaced by the current administrator, Gina McCarthy. On September 30, 2013, Administrator McCarthy signed a letter to PLP that was addressed to PLP's Chief Executive Officer John Shively. The letter was circulated to project opponents, however, *before* it was sent to PLP's CEO, a delay caused by the government shutdown. Although we assume that Ms. McCarthy was not herself responsible for this action, the fact that EPA officials were able to deliver the letter to project opponents during the shutdown—but not to its intended

[6] Alaska Daily News article stating that Lisa Jackson attended and spoke at an anti-Pebble Mine reception, available online at: http://www.adn.com/2011/04/10/1802762/critics-fault-retired-justice.html

recipient—is an indication of how closely other EPA officials were working with the Pebble opposition. Because the letter was addressed only to Mr. Shively, there was no apparent reason that it should have gone to the opposition at all. The contrast of EPA communications with Pebble opponents, which were frequent but never disclosed to PLP, is stark.

Nancy Stoner, the acting EPA Assistant Administrator for Water, appears to have been an active opponent of the Pebble Project. For many years Ms. Stoner had been a senior attorney at the Natural Resources Defense Council (NRDC), one of the principal environmental non-governmental organizations (ENGOs) opposing the Pebble Project. Ms. Stoner apparently attempted to circumvent the ban on meeting with her prior employer by adding others to anti-Pebble NRDC meetings. Specifically, when NRDC attorney Joel Reynolds on June 14, 2010, asked Stoner for a 404(c) meeting on behalf his tribal clients, she replied, "I am not supposed to set up meetings with NRDC staff, but can attend such a meeting if there are enough others in attendance." [Ex. 19] NRDC's role has not prevented Ms. Stoner from contact with other anti-Pebble groups and petitioners, and even leading a meeting requested by petitioners represented by Peter Van Tuyn. [Ex. 20] The degree to which Ms. Stoner has communicated with her former employer is not clear from the limited FOIA documents; nor are we in a position, without further investigation, to know about other anti-Pebble advocacy efforts. As the acting Assistant Administrator of the Office of Water, the office of EPA charged with deciding the fate of the Pebble Project (including potentially vetoing the project), Ms. Stoner's actions are particularly troubling.

G. Our Knowledge of EPA's Activities Is Limited Due to Email Redactions

There is clearly more to this story, but it is obscured by numerous inexplicable redactions in the EPA emails produced to PLP under FOIA. Most of the redactions are in emails with earlier dates. They occur in the body of the text as well as in address lines. Some of the emails featuring addressee redactions appear to be inconsequential. But when addressees' names are blotted out, one cannot know who participated in EPA communications, meeting invitations, and data dissemination.

When an entire block of names is removed from a message about a tribal conference call, one wonders whether the names were obliterated to make it impossible to see who was not invited. [Ex. 21] It appears the most redactions in addresses occur on those sent by Geoffrey Parker. Given his history of representing Robert Gillam, a financial backer for the anti-Pebble campaign, one cannot help but wonder what names are hidden. [Ex. 22] The early emails involving Jeff Parker, were plagued by redactions, whiteouts and blackouts, scattered through the address block, but also in the content. [Ex. 23, 24] But an email with no redactions whatsoever raises another question: why is EPA sending blind copies to Parker, as it did in this seemingly routine communication from EPA's Tami Fordham on 7-16-10, with bcc to Jeff Parker. [Ex. 25 (missing)] This email raises the question of whether EPA was routinely sending bcc emails to Parker and the other favored 404(c) advocates to keep them posted on internal EPA affairs. In general, the identities of persons communicating with agency officials are *not* exempt from release under FOIA (although arguably private information like home phone numbers may be).

Summary

Thus, although EPA has consistently claimed the Assessment was prepared in response to outside petitions, in fact the veto issue had been raised internally within the Agency two years before, and it grew serious enough to become the subject of a formal briefing of the Administrator four months *before* EPA received the first such petition. The significance of this information is that it belies the Agency's stance that it is acting as a neutral umpire responding to outside pressure. The pressure was coming from *inside* the Agency. The pretense of neutrality was, in fact, just a pretense.

Moreover, frequent communications with outside groups opposing the mine project (but not those favoring it), and the concerted EPA effort to enlist support from the Fish and Wildlife Service, show that Agency efforts to gather opposition to this project were not limited to the Agency itself. EPA, whose duty it is to evenhandedly apply the environmental laws, became the leader of efforts to pre-judge this project.

Finally, the heavily-redacted EPA emails clearly leave many gaps in the story about EPA's efforts. At the very least, the Inspector General should fill those gaps.

II. The Resulting Assessment Report Is Heavily Biased and Deeply Flawed.

In light of the intense efforts within EPA to veto the project, there should have been an extra effort to maintain neutrality of a report that commanded so many Agency resources. Unfortunately, the urge to proceed quickly, apparently to support a preemptive veto, resulted in an environmental risk assessment that is scientifically indefensible.

A. The Assessment Targets a Prospective Pebble Mine, Not the Watershed

Although the Assessment was commenced as a study of current and future potential impacts of development in the entire watershed on the salmon fishery (and other natural resources) in Bristol Bay, Alaska, it devolved into a critique of a single mining project. In fact, the Assessment never actually estimates impacts on the watershed – its purported purpose. As explained by David Atkins in his peer review of the initial draft Assessment: "Development of the mine as proposed would eliminate streams and wetlands in the project area permanently. The importance of this impact is not put in context of the watershed as a whole, so it is not possible to determine the magnitude of the risk to salmon." *Final Peer Review Report: External Peer Review of EPA's Draft Document, As Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay, Alaska*, at 13 (Sept. 17, 2012) ("Final Peer Review Report").

Originally, EPA proposed a watershed assessment study of the nine separate river systems that collectively comprise Bristol Bay (an area of some 42,000 square miles). In planning for the Assessment, EPA proclaimed an expansive desire to "evaluate all potential

large-scale development in the [Bristol Bay] watershed, including mining."[7] EPA subsequently narrowed its study to just (a) two of these nine river systems, then (b) only to the impact of mining on those watersheds, then (c) only to the impact of a prospective Pebble Mine on those watersheds. No precedent exists for such a narrowing of this sort of study. In fact, EPA policy demands that watershed assessments should evaluate the watershed as a whole, not portions of it in isolation. The EPA Region 10 *Watershed Assessment Primer* ("Primer")[8] instructs, for example, that sub-watersheds "are not designed to be stand-alone assessment areas."[9] Furthermore, it provides that "[t]o maintain or improve water quality, we need to assess problems, develop responses, and predict changes at the watershed level."[10]

In contravention of this guidance, the Assessment disregards the broader watershed and the watershed significance of the hypothetical impacts. The Assessment is not a "watershed assessment" at all, rather the document comprises speculation about the impacts of a hypothetical Pebble Project, whose impacts are never placed in context. As peer reviewer David Atkins observed, ". . . it is not possible to determine the magnitude of the risk to salmon."

B. The Assessment Is Fundamentally Biased.

The bias in the Assessment is evident from comparing its conclusions with the body of the report: in its effort to attack the mine project, EPA made conclusions that are not supported by the body of the report itself. This discrepancy did not escape the notice of peer reviewer John D. Stednick, Ph.D., who wrote: "The conclusions of the Executive Summary are strongly worded (e.g., pages ES 13 to 24), yet the uncertainties presented later in the report make the strong conclusions tenuous. An expanded discussion of uncertainties and limitations may temper those 'conclusions.'" Final Peer Review Report at 19.

Although the evidence shows that the Pebble mine project poses no significant risk to the Bristol Bay fishery, the Assessment has been drafted to make it appear that it does. This distorted picture is achieved largely through a common advocacy device: selective omission. The most important omissions are:

1. The Assessment avoids discussion of the watershed context

The Assessment speaks of lost streams and wetlands from the mine scenario footprint, but never confronts the fact that the entire mine scenario will occupy about 1/20th of 1% of the total Bristol Bay watershed, and a similar proportion of its aquatic habitat.

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[7] EPA Region 10, Bristol Bay: Frequently Asked Questions, available online at: http://yosemite.epa.gov/R10/ECOCOMM.NSF/Bristol+bay/faq.

[8] U.S. EPA Region 10, A Watershed Assessment Primer, EPA 910/B-94/005, Seattle, WA (1994).

[9] Primer, at 5.

[10] *Id.* at 2.

EPA states that it "launched this assessment to . . . evaluate the impacts of large-scale mining . . . on *the region's fish resources*" and yet the Assessment avoids this subject almost entirely. Assessment ES-1 (emphasis added). It never even attempts to quantify harm to the Bristol Bay fishery from the hypothetical mining scenario, apparently because (as noted above) any such harm would be so insignificant.

Peer Reviewer Dr. Dirk van Zyl of the University of British Columbia, an expert in mining and biogeochemistry, observed: "It is unclear to the reader how significant a loss of 87.5 km of streams in the Nushagak River and Kvichak River watersheds is to the overall ecosystem." *Id.* at 58. Dr. Dennis Dauble adds: "What is lacking is quantitative estimates of spawning and rearing habitat that would be lost relative to the total habitat available. Having this information would help provide perspective of overall risk to individual watersheds and the Bristol Bay watershed as a whole." *Id.* at 53.

2. The Assessment ignores scientific, publicly-available information about fish in the Pebble region

EPA ignored the most informative data about fish distribution, relative abundance, and density in the Pebble region. These data came from private sources (including project proponents) and from public sources such as the Alaska Department of Fish and Game (ADFG). Examples of the information that EPA ignored include:

- the 2005 Northern Dynasty Minerals progress report on fish resource/habitat studies which included sampling locations, fish catch and distribution data, and fish density plots
- the Environmental Baseline Document (EBD) released by the Pebble Limited Partnership in 2011 which contains site-specific, detailed information on fish distribution, relative abundance, and fish densities
- fish distribution, relative abundance, and fish density information from the ADFG and J.W. Buell and Associates, both of which are publically available and on ADFG's Freshwater Fish Inventory website
- data from fish collection permits issued by ADFG to private consultants of PLP, which is publicly available
- data and information presented at the annual agency meetings which included summary information and adult salmon population spawning escapement estimates
- information and data presented at a June 12, 2008 PLP/Agency Fish Technical Work Group meeting in Anchorage which included an overview of all the studies conducted near the Pebble deposit including specific information on fish distribution and relative abundance. At this meeting, a notebook with hundreds of pages of specific fish distribution and catch data that had been submitted to ADFG as part of their collection permit requirements for the years 2004-2007 was used as a resource in the presentation by PLP. EPA's Phil North attended this meeting but did not ask for a copy of these data.

Statements in the Assessment that such detailed information was not available are obviously false. All of these comments and examples were submitted by Pebble Limited Partnership ("PLP") and Northern Dynasty Minerals ("NDM") during the first comment period, but EPA failed to incorporate any of this information in the second draft of the Assessment. In fact, the foundational assessment documents for fish (Appendix A (anadromous fish) and Appendix B (resident fish)) did not change from one draft to another.

Such data omissions are repeated throughout the Assessment. PLP spent roughly $150 million to generate extraordinarily comprehensive environmental baseline information about the Pebble region, but only a limited amount of that information was ever incorporated into the Assessment, and virtually none of the incorporated information was used to determine the "ecological setting" or the ecological risk associated with the Assessment's (flawed) mine scenarios.

These omissions flout the common-sense principle – reiterated in EPA policy and guidance – to use the *best available* science and information. Consistent with EPA's Scientific Integrity Policy, EPA was required to "[e]nsure that the Agency's scientific work is of the highest quality, free from political interference or personal motivations."[11] In particular, those responsible for the Assessment were required to use "the best available science and supporting studies conducted in accordance with sound and objective scientific practices" and "data collected by accepted methods or best available methods."[12] Agency guidance further emphasizes "an inclusive approach" to assessing available evidence – one that requires EPA to "investigate the possible reasons for any disagreement [across different sources] rather than ignore inconvenient evidence."[13] Here, instead of making use of the wealth of relevant, high-quality information from PLP and others, EPA ignored it. Whether the Assessment's data omissions were mere oversights, a product of haste, or – at worst – a deliberate manipulation of the information, they are indefensible.

3. The Assessment omits scientific analysis of compensatory mitigation

If, after minimizing the project's impact, there would still be a net loss of salmon habitat, PLP would be *required* to compensate for it, and would have more than enough viable options to accomplish that mitigation. The Assessment suggests that compensatory mitigation of a loss of habitat is unlikely to succeed, due to the absence of suitable mitigation sites. In fact, the Pebble deposit area has many such sites, and PLP has identified habitat enhancement opportunities that

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[11] U.S. EPA, Scientific Integrity Policy, at 3.

[12] U.S. EPA, *Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by the Environmental Protection Agency* ("2002 Guidelines"), EPA/260R-02-008, at 19 (Oct. 2002); *see also, e.g.*, U.S. EPA, *Application of Watershed Ecological Risk Assessment Methods to Watershed Management*, EPA/600/R006/037F, at 3 (Mar. 2008) ("Effective risk communication must accurately translate *the best available and most useful scientific information* in a manner understandable to managers and stakeholders." (emphasis added)); U.S. EPA, *EPA Science Policy Council Handbook: Risk Characterization*, EPA 100-B-00-002, at 18 (Dec. 2000) ("Reasonableness is achieved when . . . the characterization is based on the best available scientific information.").

[13] U.S. EPA, *Guidelines for Ecological Risk Assessment*, EPA/630/R-95/002F, at 114, 115 (May 14, 1998).

could lead to a manyfold *increase* in habitat once compensatory mitigation is included in the analysis.[14]

EPA based the report on the environmental impacts of a mine project that included no environmental mitigation, although such protective measures are required by law. In Appendix J to the Assessment, EPA erroneously claims that there are no mitigation options within these three watersheds that could offset impacts associated with the Pebble project.[15] In support of these sweeping biological conclusions, EPA relies heavily on a recent article written by Thomas Yocum and Rebecca Barnard. Ms. Barnard is a lawyer representing the Bristol Bay Native Corporation in opposition to the Pebble Mine.[16] Mr. Yocum likewise is an active opponent of the Pebble Mine who recently authored anti-Pebble reports for the Bristol Bay Native Corporation and Trout Unlimited.[17]

4. The Assessment omits modern mining practices from its risk scenarios

The Assessment devises exaggerated risk scenarios that are based on a hypothetical mine of the EPA's design at the location of the Pebble deposit. EPA's creation excluded modern mine design and operating practices. Thus the analysis omits the environmental protection and mitigation measures *required* for mine permitting. As a result, the Assessment overstates the risk of virtually every aspect of the operation of the hypothetical mine on which the report is based.

Mr. North, perhaps the primary Pebble opponent within EPA, has reported in an extensive interview published online (*Redoubt Reporter*, July 17, 2013, by Jenny Neyman) that he co-authored the mine design sections of the report. He admitted that this was "one of the most contentious parts of the assessment . . . the mining scenario on which much of the determination of potential environmental harm is based." In fact, the failure to include mitigation or modern mining practices in that scenario is one of the fundamental sources of bias in the Assessment. Mr. North's bare-bones mining scenario apparently stems from his view, reported in this interview, that "really, mining companies don't use state of the art because it's too expensive, so it's really more like the state of the practice."

The entire Assessment is largely grounded in Mr. North's low expectations for new mines, but Mr. North's low expectations are unrealistic. As Dr. Dirk van Zyl, Ph.D., P.E. bluntly concluded: ". . . it is inconceivable to me that the Bristol Bay communities, the Alaska regulatory authorities as well as Federal Regulatory Authorities will not demand that the company follow

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[14] Comments of Buell & Associates, Inc., *An Evaluation of EPA's Bristol Bay Watershed Assessment 2013 2nd Draft Assertions Regarding Fish Habitat Mitigation Measures Efficacy and Applicability*, (May 22, 2013)

[15] *Id.*, at 17.

[16] *See* Thomas G. Yocum & Rebecca L. Bernard, *Mitigation of Wetland Impacts from Large-Scale Hardrock Mining in Bristol Bay Watersheds*, 3 SEATTLE J. ENVT. L. 71 (2013) (describing Ms. Bernard as outside counsel for the Bristol Bay Native Corporation).

[17] *See id.* at 73 n.5 (referencing a report prepared by Mr. Yocum for the Bristol Bay Native Corporation and Trout Unlimited).

"best mining practices," however that is defined at the time. It is also inconceivable to me that the company will not follow "best mining practices" in the design and development of such a mine." Final Peer Review Report at 40.

The peer reviewers overwhelmingly supported Dr. Van Zyl's conclusion: a glaring flaw in the Assessment is its focus on a hypothetical mine that neither uses best mining practices nor conducts compensatory mitigation – a mine that could never be permitted. Numerous peer reviewers of the May 2012 draft commented on the Assessment's failure to evaluate a scenario that included best mining practices and mitigation. For example, peer reviewer David Atkins observed that "[T]he Assessment also does not consider alternative engineering strategies (so called "best practice" approaches) that could lessen the risk of failure and possibly the necessity for perpetual management and water treatment." Final Peer Review Report at 13. Peer reviewer Steve Buckley commented:

> There is inadequate information on, and analysis of, potential mitigation measures at the early stages of mine development, which would attempt to reduce the impacts of mining activities on fish and water quality.

Final Peer Review Report at 14. Dirk van Zyl, the reviewer with the most experience in mine engineering, commented:

> While the failure mode is adequately described, engineering and mitigation practices are not adequately described by EPA.
>
> Any mine in Bristol Bay will have to undergo a rigorous and lengthy regulatory review and permitting process. I do not know of a process that will exclude consideration of the impact of all mine facilities on the streams and wetlands in the region. Therefore, I would suggest that the full implications of "mine operations conducted according to conventional practices, including common mitigation measures, and that meet applicable criteria and standard[s]" should have been addressed in the report. . . . "When damages to wetlands are unavoidable, the Corps can require permit[t]ees to provide compensatory mitigation." It is unclear why this was not included in the evaluations.

Id. at 48. Dr. van Zyl also pointed out that "there are reasonable mitigation measures that would reduce or minimize the mining risks and impacts beyond those already described and incorporated by the EPA in the assessment. There are a host of measures that are not addressed in the assessment . . . ." *Id.* at 102.

Phyllis K. Weber Scannell, a reviewer with extensive experience in mine permitting in Alaska, described some of the measures missing from the Assessment's scenario:

> Chapter 4 provides a detailed description of a hypothetical mine design for a porphyry copper deposit in the Bristol Bay watershed. Some of the assumptions appear to be somewhat inconsistent with mines in Alaska. In particular, the descriptions of effects on stream flows from dewatering and water use do not account for recycling process water, bypassing clean water around the project, or treating and discharging collected water.

Id. at 49.

> Reviewer David A. Atkins noted the importance of mine mitigation measures:
>
> The Assessment describes what is considered to be conventional 'good' mining practice, but does not adequately describe and assess mitigation measures that could be required by the permitting and regulatory process. A thorough analysis of possible mitigation measures as employed for other mining projects and the likelihood that they could be successful in this environment would be necessary.

Id. at 99.

The peer reviewers also commented on some of the particular deficiencies of the mining scenario. For example, with respect to *culvert failures*, Phyllis K. Weber Scannell commented:

, Ph.D. – 75

> The risks to salmonid fish due to culvert failures would be minimized by implementation of permits by Alaska Department of Fish and Game (ADF&G), Habitat Division. Under A.S. 16.05.840-870, Alaska has some of the most protective laws for fish and fish habitat in the United States. Further, given the lack of specific information on road alignments, construction methods and stream crossings, it is not possible to calculate lengths of affected streams, quantify loss of fish habitats, or predict failures of culverts, side slopes, etc.

With respect to *pipeline failures*, Dr. van Zyl observed:

> The EPA Assessment does not identify or appropriately characterize the risks to salmonid fish due to pipeline failures. It only estimates the likelihoods of occurrence and the consequences.

Final Peer Review Report at 75. The chance of a tailings storage facility failure was given special prominence in the Assessment. On that subject, Dr. van Zyl noted:

> I expect that a tailings review board will also be used for the Pebble Mine and the behavior of a tailings management facility designed and operated under these conditions will be more representative of the potential failure likelihoods expected for such a

> facility. It is expected that this likelihood will be much lower than those used in the evaluations of the scenario in the EPA Assessment.

Final Peer Review Report at 84. The Assessment's poor characterization of the likelihood of such a failure drew the following comment from peer reviewer Charles Wesley Slaughter, Ph.D.:

> The probability approach outlined for potential TSF dam failure is unpersuasive. It is difficult to relate to a number like "0.00050 failures per dam year," or to the implication on p. 4-47 that one can expect a tailings dam failure only once in 10,000 to one million "dam years." *This could suggest to the casual reader that failure of the hypothesized TSF1 dam (for which one "dam year" is one year) should not be anticipated in either the time of human occupation of North America, or the span of human evolution.*

Final Peer Review Report at 62.

The other technical comments on defects of various aspects of the scenario are too lengthy to repeat here, but they are summarized on pages 16-23 of the June 28, 2013 *Comments on Second External Review Draft of "An Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay, Alaska" (April 2013)* prepared for Pebble Limited Partnership by Crowell & Moring LLP ("Crowell Comments") [Ex. 26]. The detailed technical comments are cited and discussed therein.[18]

4. Ignoring Important Environmental Data

PLP spent some $150 million on independent scientists from many different consulting firms who studied the Pebble project environment. Their work resulted in an extraordinarily comprehensive set of environmental baseline data concerning every important aspect of the Pebble deposit's environment. PLP made all of these data available to EPA in January 2012, but the Agency's May 2012 draft report essentially ignored it. In fact, even in EPA's second draft—published a year later (April 2013)—EPA *still* ignored these data, which are by far the best and most comprehensive available.

EPA's failure to consider and evaluate with care these data (and data from other public sources) is among the fundamental deficiencies in the Assessment. As explained by Buell & Associates, Inc., "EPA drew the wrong conclusions regarding adult salmon spawning distribution and relative ecological importance by failing to examine site specific and publicly available data on the habitat conditions, fish species distribution, and densities of juvenile salmonids found in their mine development impact areas." Comments of Buell & Associates,

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[18] Tailings storage and operation: Knight Piésold Consulting, *Review of the Bristol Bay Assessment*, at 2 (June 28, 2013); wastewater treatment operation: Environmental Resources Management, *Comments on EPA's May 2013 Bristol Bay Assessment*, at 9 (June 28, 2013) ("ERM Comments"), Knight Piesold at 2-3; waste rock storage: Geosyntec Consultants, *Assessment of USEPA Response to Geosyntec's Comments on the Bristol May Watershed Assessment*, at 10-11 (May 22, 2013) ("Geosyntec Comments"); pipeline failures: Geosyntec Comments at 9-10; road corridor and culverts: Geosyntec Comments, Tbl. 1 at 11, 12.

Inc., *An Evaluation of EPA's Bristol Bay Watershed Assessment 2013 2nd Draft Assertions Regarding Fish Habitat Mitigation Measures Efficacy and Applicability*, at 12 (May 22, 2013) (herein "Buell & Associates"). For example, EPA concluded that salmon spawn above Frying Pan Lake in the South Fork of the Koktuli, a conclusion that is not supported by available data. *Id.* "If EPA had completed an adequate evaluation of the public sources of information, it is likely that their conclusions regarding the overall ecological significance and magnitude of potential impact would have been different. *Id.* at 14.

C. EPA Retained a Mine Opponent, Dr. Boraas, to Author an Appendix.

In addition, the Assessment's appendix on Native cultures (Appendix A) was authored by Professor Alan Boraas, who has been an open opponent of the Pebble Project since at least April 2007, when he was described as "a frequent op-ed contributor to the Anchorage Daily News. One of his targets for criticism is the Pebble copper project in southwest Alaska."[19] He presented work he was contracted by EPA to undertake for the assessment at various anti-Pebble forums. There are also questions about how the individuals he interviewed were chosen and why he chose to concentrate on communities that were known to be actively opposed to Pebble.

Summary

In addition to instances of biased conclusions, poor science, and slanted presentation far too numerous to mention, the Assessment was *structured* to produce a distorted risk picture. First, the object of the Assessment is a hypothetical mine—a fictional mine devised by Mr. North, an EPA employee devoted to obtaining a preemptive veto—that could never be permitted because it fails to incorporate modern environmental protection practices. Second, the Assessment assumes that the impacts on fish from this fictional mine cannot be mitigated—contrary to legal requirements, and totally in disregard of ample information (provided to the Agency) that fish impact mitigation has been successfully accomplished for many years and can be accomplished here. Finally, it not only avoids placing the speculative harm to fish in the context of the Bristol Bay fishery (the resource of concern), it even ignores publicly available data about fish distribution, relative abundance, and density in the Pebble region itself.

The Assessment report's flawed structure and selective use of data apparently stem from a desire to construct a justification to veto the Pebble project and to lead the public to draw the wrong conclusions about the possible impacts of Pebble on the Bristol Bay fishery. The Inspector General should investigate the report to illuminate shoddy practices and to help assure that Agency policies on the use of science are not so flagrantly disregarded in the future.

III. EPA Manipulated the Peer Review Process to Try to Validate This Flawed Report.

[19] J.P. Tangen, *Mining and the law: Rio Tinto and the Pebble project*, MINING NEWS, Vol. 12, No. 17 (Apr. 29, 2007).

Peer reviewing a scientific report should be a useful procedure. Here, however, EPA misused the peer review process in ways that contributed to the biased result.

A. EPA Selectively Peer Reviewed Anti-Pebble Reports and Used Them Although the Peer Reviewers Found Them to Be Biased and Unreliable

Following the issuance of the first External Review Draft of the Assessment, EPA engaged peer reviewers for the apparent purpose of legitimizing at least seven reports written by mine opponents that EPA intended to use in the final Assessment. EPA wrote that "[o]ther non-governmental organizations have collected data specific to the Pebble deposit site. USEPA subjected some of these documents to external peer review before incorporating this information into the assessment." Assessment at 2-3. EPA exclusively selected reports by paid mine opponents—none of them were by mine project proponents, or even by neutral authors. It does not appear that EPA was looking for unbiased science, but for support for a predetermined position.

Despite EPA repeatedly indicating that the Assessment would be conducted using "an open and transparent process," the public was not notified that these peer reviews would be taking place. EPA has never satisfactorily explained why those particular reports were selected. This peer review process was conducted completely in the dark.

PLP obtained copies of those peer review reports from EPA's website: they are so damning that their content probably is the reason why EPA described them so vaguely in the draft Assessment. The peer reviewers identified the biased nature of these reports, and their comments reveal that these reports have little scientific value. What little value they have comes from compilation of the results of studies by others, although those studies were apparently selected to support the authors' own anti-Pebble (or anti-mining) agenda. These circumstances suggest that EPA chose to use them not because of their scientific value, but because of their slant. For one study, in particular, ('Woody and Higman, 2011 – "Groundwater as Essential Salmon Habitat in Nushagak and Kvichak River Headwaters: Issues Relative to Mining"), the report describes findings from a *one-day survey* of streams in the project area. It is revealing that EPA spent time and money to Peer Review such a flimsy undertaking while wholly ignoring the tens of millions of dollars of scientific findings that PLP collected at the project site over *10 years* of effort.

The seven peer-reviewed reports are so biased that they have no place in an assessment that purports to be objective. These seven reports, the peer review comments, and the overt anti-Pebble mission of the authors are discussed in detail in the Crowell Comments at pages 32-40. [Ex. 26]

It is hardly surprising that the peer reviewers found bias in the foregoing studies. Most of the authors of the seven reports are paid opponents of the Pebble Project. The authors include

David Chambers, Stu Levit, Carol Ann Woody, Sarah O'Neal, Bretwood Higman, and Ann Maest. The Assessment also uses works by Kendra Zamzow.

David Chambers is the president of the Center for Science in Public Participation ("CSP2"), which opposes mining in general and the Pebble project specifically. Its website is located at http://www.csp2.org/. The website's project page discusses the organization's activities opposing Pebble and its involvement with others whose articles were selected by EPA for peer review. The website explains in relevant part:

> Since 2007 CSP2 has been providing technical support to a loose coalition of groups opposed to the proposed [Pebble] mine. Dave Chambers, (general mining), Kendra Zamzow, (geochemistry), and Stu Levit, (reclamation and regulatory), have provided support from CSP2. CSP2 also utilized consultants Carol Ann Woody, Ph.D., and Sarah O'Neal, M.S., from Fisheries Research and Consulting to provide support on fisheries biology, and Ann Maest, Ph.D., and Cam Wobus, Ph.D., from Stratus Consulting to provide technical support on geochemistry and hydrology. Bretwood Higman, Ph.D., from Ground Truth Trekking provided fault and seismic research.
>
> The research efforts of this technical team have led to a significant number of publications and professional presentations. Dave Chambers, and CSP2 consultant Bretwood Higman, developed a paper on the "Long Term Risks of Tailings Dam Failure" which has been presented at several professional meetings. Kendra Zamzow collected and analyzed water quality data from several sites in the area of the proposed mine "Investigations of Surface Water Quality in the Nushagak, Kvichak, and Chulitna Watersheds, Southwest Alaska, 2009-2010." Stratus Consulting has developed a state-of-the-art computer hydrologic model that is being used to develop predictions of groundwater and surface water flows, and the geochemistry of those waters, which would result from the development of the mine. Fisheries Research and Consulting has been involved in a multi-year survey to collect data on the presence of salmonids in the area, "Fish Surveys in Headwater Streams of the Nushagak and Kvichak River Drainages, Bristol Bay, Alaska, 2008 – 2010."
>
> EPA released its Draft "Bristol Bay Watershed Assessment" in May, 2012. This is a significant scientific effort to evaluate the potential impacts of the Pebble mine on the Bristol Bay ecosystem. Dave Chambers and Kendra Zamzow provided technical critiques of the Draft to EPA with recommendations for improvement. *CSP2 is also working with the Bristol Bay Native Corporation in its effort to convince EPA to invoke its power under section 404(c) of the Clean Water Act to veto the Pebble Project* because it would have an "unacceptable adverse effect" on fisheries resources in the Bristol Bay region.

CSP2, http://www.csp2.org/projects (last accessed June 24, 2013) (emphasis added). Of these authors, Mr. Higman is the most versatile: he co-authored papers both on tailings dam failures (with Mr. Chambers) and on ground water being essential salmon habitat (with Ms. Woody). The Assessment also uses works by Ann Maest, Cam Wobus, and Kendra Zamzow, all of whom helped Mr. Chambers' firm provide technical support "to a loose coalition of groups opposed to the proposed mine." In addition to being a mining opponent, Ann Maest has been seriously discredited by her own employer, Stratus Consulting.[20]

Lastly, if EPA believed it desirable that certain submissions by the public should be peer reviewed, then fairness demands that studies submitted by both proponents and opponents of the project should have been peer reviewed. PLP, the State of Alaska and several other organizations submitted such reports during the public comment period.

B. EPA Attempted to Manage the Peer Review Process to Minimize Criticism

1. The Peer Review Was Inappropriately Constrained By EPA's Arbitrary Deadlines.

The EPA's Peer Review process for the first draft watershed assessment (May 2012) should have produced an improved second draft, but it was conducted in a manner that minimized its impact. Part of the restriction was the schedule, which for this sort of document, EPA has kept extremely tight. The initial draft of the Assessment was prepared in about one year. By way of comparison, a review of all other watershed assessments undertaken by EPA shows most took significantly longer (5 – 11 years) to study much smaller land areas and less complex development issues. As part of EPA's imperative to issue the report quickly, the peer reviewers themselves commented that they needed more time to do justice to the magnitude of the assigned task. Peer Reviewer Dirk van Zyl, Ph.D., P.E., wrote:

> My comments contained above and below are based on a single review of the report, i.e. contractual time constraints were such that I could not afford a second review of the

[20] Dr. Ann Maest is a "Managing Scientist" with Stratus Consulting. On April 12, 2013, a sworn declaration was filed in a New York federal district court by Mr. Douglas Beltman, Executive Vice President of Stratus, referring to work carried out by Stratus and Dr. Ann Maest, where he declared that he has "disavow[ed] any and all findings and conclusions" in certain Stratus reports relating to alleged oil contamination in Ecuador. *Chevron Corp. v. Donziger, et al.*, Witness Statement of Douglas Beltman, at ¶ 76, S.D.N.Y. No. 1:11-cv-00691-LAK (filed April 12, 2013). Mr. Beltman disavowed the Stratus scientific work, in part, because his own public statements regarding this project were "misleading" (¶ 66), and public statements by others associated with the project (including Dr. Maest) were unsupportable. *See, e.g.*, ¶ 73 ("I have no scientific bases to believe any of the public statements referenced above to be true."); *see also id.* ¶ 22 ("I supervised the preparation by Dr. [Ann] Maest and other Stratus personnel or subcontractors of 11 of the 24 sub-reports and appendices . . . ."). For more information regarding Dr. Maest, see American Resources Policy Network, *A Response to the EPA's Release of its Revised Bristol Bay Watershed Assessment* (Apr. 29, 2013), *available at* http://americanresources.org/a-response-to-the-epas-release-of-its-revised-bristol-bay-watershed-assessment/.

> report. It is therefore possible that there are other errors remaining in the report that I did not observe in my review.

Final Peer Review Report, at 23.

EPA had no good justification for imposing such an abbreviated schedule. According to EPA's Peer Review Handbook,[21] "[t]he schedule for peer review should take into account the availability of a quality draft work product, availability of appropriate experts, time available for peer review comments, deadlines for the final work product, and logistical aspects of the peer review (e.g., contracting procedures)." Peer Review Handbook at § 3.3.1. Here, the complexity of the scientific issues, the absence of any obligatory deadlines, and the significant implications of the Assessment for future policymaking called for a generous schedule rather than the condensed period the Peer Reviewers were allowed. Ultimately, EPA's unnecessary haste undermined the potential for high-quality assessment, and further calls into question the basic scientific rigor and objectivity of the Assessment.

2. EPA Manipulated the Peer Review Procedures To Minimize Criticism.

The Peer Review process was also managed in a way that seriously limited public input, and appears to have been designed to limit Peer Review criticism of the draft Assessment. Importantly, the Peer Reviewers were not given Pebble Limited Partnership ("PLP") or Northern Dynasty Minerals ("NDM") comments on the draft Assessment prior to the filing of their peer review submissions. The Open Meeting that EPA coordinated with the Peer Review panel was woefully inadequate for the level of public interest generated by the draft Assessment. Speakers were limited to *three minute* presentations *and* were forbidden from providing written submissions. EPA also directed the peer reviewers to respond to a set of questions ("the charge") that narrowed the scope of the peer review to topics selected by the Agency. PLP requested EPA to allow the peer reviewers to address other questions, but (with one minor exception) those requests were rejected. Such efforts to limit stakeholder input fly in the face of established Agency policy and guidance, not to mention EPA's own prior pronouncements with respect to this particular Assessment. EPA's Peer Review Handbook states that "[w]hen employing a public comment process as part of the peer review, Offices should provide the reviewers access to the public's comments that address scientific or technical issues." Peer Review Handbook § 3.3.1; *see also id.* at §§ 2.4.7, 1.5.3, 3.5.2 (echoing the obligation to provide access to significant public comments). Likewise, EPA's original Peer Review Plan for the Assessment indicated that EPA *would* indeed "provide significant and relevant public comments to the peer reviewers before they conduct their review." Peer Review Plan, http://cfpub.epa.gov/si/si_public_record_report.cfm?dirEntryId=241743 (select hyperlink to "Peer Review Plan"). For an Assessment evaluating the impacts of a potential future Pebble mine, surely the detailed technical comments of PLP and NDM were "significant and relevant." These comments plainly should have been provided to the Peer Reviewers.

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[21] *See* U.S. EPA, Science Policy Council. *Peer Review Handbook* (3d ed.) ("Peer Review Handbook"), EPA/100/B-06/002 (2006).

Other EPA actions similarly exceeded the proper limits on its involvement in the Peer Review process. Two days after its Open Meeting with the peer review panel, EPA attended and participated in a closed meeting with the peer reviewers. The public was excluded from this meeting and the actual discussions have never been disclosed. Such *ex parte* contacts between EPA and the members of an appointed Peer Review team are prohibited. Where, as here, EPA has relied on a contractor to direct the peer review process, "EPA should limit direct contact to the prime contractor's designated representative and should not have general contact and direction to the contractor's staff or peer reviewers (sub-contractors)." Peer Review Handbook at § 3.5.3(b).

Finally, the summary of Peer Review comments on the first draft BBWA report prepared by EPA's contractor substantially understated the Peer Reviewers' criticisms. While the summary of the Peer Review panel's "Key Recommendations" generally reflects individual comments offered by the Peer Reviewers, missing from the "Key Recommendations" is the tone and incisiveness of the individual written comments. The "Key Recommendations" are in fact written as just that – recommendations, not *criticisms*. Many of the specific criticisms are not repeated, and often they do not appear except by implication. Those implications tend to be general and vague. In contrast, the individual critical comments tend to be specific, clear, and authoritative, in some cases denoting fundamental flaws in the Assessment. *See, e.g.*, Final Peer Review Report at 39 ("While some of the components of the final mine may contain elements of the conceptual mine, it is impossible to know whether the hypothetical mine scenario is realistic . . . . I therefore consider the mine scenario not sufficient for the assessment.").

3. EPA's Second Peer Review Ignored Transparency Entirely.

The peer review of the second draft of the Assessment was even more shielded from public scrutiny than was the first. Peer Review of the second draft of the Assessment (April 2013) was done in absolute secrecy and demonstrated even less regard for OMB Guidelines and EPA handbooks than the original Peer Review. The questions asked and responses received from the Peer Reviewers have never been disclosed, and EPA has communicated that it may publish the final Assessment before any public disclosure of the Peer Review comments has been made. EPA provided absolutely no public access to the Peer Reviewers over the course of the process, nor, insofar as we know, were the Peer Reviewers provided access to the comprehensive and highly detailed comments critical of the second draft of the Assessment prepared by PLP and NDM.

EPA's own peer review handbook shows EPA's astonishing degree of disregard of proper procedures. EPA wrote that "One important way to ensure decisions are based on defensible science is to have an open and transparent peer review process." Peer Review Handbook at xiii. The need for a transparent Peer Review process is not limited to any single aspect or phase of Peer Review. "In general, an agency conducting a peer review of a highly influential scientific assessment must ensure that the peer review process is transparent by making available to the public the written charge to the peer reviewers, the peer reviewers' names, the peer reviewers' report(s), and the agency's response to the peer reviewers'

reports(s)."[22] By denying stakeholders and the general public even the most basic information about the second Peer Review in advance of the final Assessment's release, EPA jeopardized the integrity of its peer review process.

Summary

A peer review should be a transparent process that allows experts to critique a draft report for scientific validity. EPA's manipulation of the peer review process here reveals other agendas. The most blatant was its attempt to use peer review to legitimize seven reports by self-professed mine opponents (and *none* by neutral parties or mine proponents, who submitted many scientific reports) by peer reviewing them. The peer reviewers found the studies to be biased and unreliable, but EPA used them anyway.

The peer review of the first draft of the Assessment was not an unrestricted, transparent critique: EPA imposed time constraints that limited the depth of the review; it restricted the charge questions; it limited public input to the peer reviewers to three-minute presentations; and it followed two days of public sessions with a next-day closed meeting that included EPA, excluded the public, and has never been transcribed. Despite these limitations, the peer reviewers recognized significant flaws in the report.

The peer review of the second draft of the Assessment was conducted *completely* in the dark. There was no public input at all, and no disclosure of peer reviewer comments. We do not know what the peer reviewers were asked to comment on, how much time they were given, or what they said. What was supposed to be transparent had become clandestine, thus diminishing the credibility and value of what should have been a salutary process.

The Inspector General Should Investigate Whether EPA's Actions Violate the Information Quality Act

A biased report and biased process violate the Information Quality Act ("IQA") and the OMB and EPA guidelines promulgated pursuant thereto. Section 515 of the IQA directs federal agencies to maximize "the quality, objectivity, utility, and integrity" of the information they create, collect, and disseminate. 44 U.S.C. § 3516 note. According to the OMB guidelines, "objectivity" requires disseminated information to be "presented in an accurate, clear, complete, and unbiased manner, and as a matter of substance, is accurate, reliable, and unbiased." Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies, 67 Fed. Reg. 8452, 8453 (Feb. 22, 2002). "Utility" is a requirement for the information to be useful. *Id.* at 8459. Stricter standards apply to information like the Assessment that is "influential."[23] Influential" information refers to

[22] Office of Management and Budget, *Final Information Quality Bulletin for Peer Review*, at 1-2 (Dec. 15, 2004).

[23] In addition to the obvious policy implications of the Assessment (EPA's stated intent to use the Assessment in later decision-making regarding a future Pebble mine), EPA's Peer Review Plan for the Assessment expressly designated it "highly influential." *See* http://cfpub.epa.gov/si/si_public_record_report.cfm?dirEntryId=241743.

(Continued...)

information that "will have or does have a clear and substantial impact (i.e., potential change or effect) on important public policies or private sector decisions." U.S. EPA, *Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by the Environmental Protection Agency* ("2002 Guidelines"), EPA/260R-02-008, at 19 (Oct. 2002. As noted at the outset of this letter, a decision to veto this project would substantially harm the regional, Alaskan, and U.S. economies. OMB reminds agencies that it is "crucial that information Federal agencies disseminate meets these guidelines." *Id.* at 8452.

The EPA information-quality guidelines require EPA to ensure the objectivity of influential scientific information by relying on the "best available science and supporting studies conducted in accordance with sound and objective scientific practices." Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity, of Information Disseminated by the Environmental Protection Agency, EPA/260R-02-008, October 2002, at Sec. 6.4 (EPA applies quality standards adapted from the Safe Drinking Water Act to all agency risk assessments, including ecological risk assessments).[24]

Here, for the reasons described above, even the limited evidence available without an investigation strongly suggests that the EPA report fails to meet the IQA requirements for objectivity or utility.

Conclusion

The Pebble Project is among the most significant mineral deposits ever discovered. It has the potential to supply as much as one-quarter of the United States' copper needs over more than a century of production, while supporting 15,000 high-wage American jobs and contributing more than $2.5 billion to the country's GDP each year. It is located on State of Alaska lands accepted by the state as part of a land swap with the federal government specifically for its mineral potential, and designated through two public land-use planning processes for mineral exploration and development. It also appears to be the target of long-standing secret collaboration between senior EPA officials and environmental activists to secure the first-ever pre-emptive 404(c) veto of a major development project in the 43-year history of the Clean Water Act.

EPA Employees Have Been Working For Years to Promote a Veto

Furthermore, there is now considerable evidence from heavily redacted emails that the impetus for seeking a pre-emptive 404(c) veto of the Pebble Project did not come from federally recognized tribes in Alaska, as EPA has repeatedly claimed, but from agency officials themselves. This evidence, obtained under the Freedom of Information Act from EPA, suggests that EPA officials in Alaska began musing about the potential for a pre-emptive 404(c) veto of

[24] EPA guidelines available online at http://www.epa.gov/quality/informationguidelines/documents/EPA_InfoQualityGuidelines.pdf

the project, and lining up other federal agencies to support this plan, some two years before the first petition was received from federally recognized tribes. The heavily redacted emails produced by EPA have provided a glimpse into an unacknowledged EPA initiative, apparently begun by Phil North, to veto the Pebble project, to promote activist support for a veto, and to enlist other federal agencies such as the Fish and Wildlife Service to support a veto (*"This is going to happen and it's going to get bloody. I am looking forward to it!"*). This activity began secretly long before EPA received the petition that it claims caused EPA to initiate the Assessment. Its full scope is still unknown, and warrants further investigation.

EPA's routine collaboration with Pebble opponents, while keeping others in the dark (including PLP, mine project supporters, and the general public) shows an agency providing special access and special treatment to Pebble opponents. Emblematic of this collaboration is the transmittal of a letter from the Administrator to PLP's Chief Executive Officer, the only addressee of the letter, only *after* it was circulated to Pebble opponents.

The Assessment Report Is Biased to Support a Veto and Is Fundamentally Flawed

EPA's own agenda and its collaboration with mine opponents have produced an Assessment that violates EPA's own policies. The Assessment is a document written to create fears of calamity without ever assessing the real likelihood of harm to the salmon in Bristol Bay. Data in the report show that the entire mine scenario will occupy about $1/20^{th}$ of 1% of the total Bristol Bay watershed, and a similar proportion of its aquatic habitat. Even the vast 400 square mile watershed area surrounding Pebble produces only about one-half of 1% of the sockeye salmon upon which the Bristol Bay commercial fishery is based.

The Assessment evaluates a mine scenario co-authored by Mr. North (EPA's principal early advocate for a veto of the Pebble project) who has publicly admitted that he did not include state of the art technology because he assumed that mining companies would not use what is available. This critical flaw was recognized by numerous independent peer reviewers (selected by EPA), who said precisely the opposite—that the permitting process would require much more and better technology than what EPA used for its Assessment. This Assessment uses a mine scenario that fails to meet legal *requirements* to protect against harm to salmon, by assessing a fictional mine that does not meet modern standards for environmental protection.

By ignoring available evidence gathered by PLP and from public sources, the Assessment authors overstated the presence of salmon living where the mine is assumed to be constructed. It assumes that no mitigation will be available based on a report by avowed mine opponents who represent anti-Pebble activists. This assumption is belied by decades of evidence about the effectiveness of salmon habitat mitigation techniques.

For scientific support, the Assessment uses numerous studies by anti-mine activists. EPA quietly commissioned Peer Reviews of seven studies authored by anti-Pebble activists, presumably in hopes of bolstering their credibility. No studies supportive of the Pebble Project received any such treatment, including the Pebble Partnership's $150 million contribution of the

most comprehensive and relevant environmental data set available on the region. When EPA quietly had seven of those studies peer reviewed, EPA's own peer reviewers found them to be biased and unreliable, but EPA used them anyway.

EPA Manipulated the Peer Review Process to Support Its Preferred Result

Finally, EPA manipulated the peer review of the Assessment itself in a way designed to minimize criticism of the Assessment. EPA violated its own standards when, during the first peer review, it unduly restricted the schedule, shielded the peer reviewers from public comments, and then held a closed-door meeting with the peer review panel. During the second peer review, EPA shut out the public entirely, completely violating its own standards for transparency.

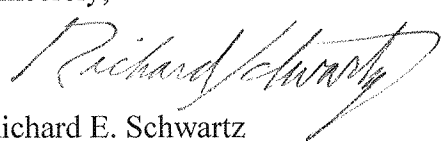
For the first peer review, EPA provided a very narrow charge to the Peer Reviewers for their review of the initial watershed assessment draft in 2012, and limited public access to the Peer Review panel to three-minute per-person verbal presentations. EPA met with Peer Reviewers in private, refused to release their full reports on the watershed assessment document and subsequently published a significantly watered down summary report. Notwithstanding these limitations, the Peer Reviewers gave voice to some very serious criticisms of the watershed assessment, some of which are presented in this submission.

For the second draft of the watershed assessment in 2013, EPA provided its charge to Peer Reviewers in private. In fact, no public access to the Peer Reviewers was permitted whatsoever, and EPA recently reported it may publish the final draft of the watershed assessment before any Peer Review input is made public. While EPA's management of the Peer Review process in 2012 fell well short of the agency's own guidelines for such processes, the 2013 Peer Review made an open mockery of them.

Request for Investigation

In summary, the agency's bias has created a heavily biased scientific report that contravenes the IQA prohibition against allowing bias to infect the agency's scientific assessment of environmental risk. We respectfully request that the Inspector General investigate the issues raised above. We would greatly appreciate your timely attention to these EPA activities, and we would be pleased to meet with you to discuss any aspect of this request.

Sincerely,



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